



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

**OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES**

Memorandum

From: Michael Patterson, Ph. D. /s/ 3-31-04
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
Environmental Field Branch
Field and External Affairs Division

Subject: Effects Determination for Linuron for Pacific Anadromous Salmonids

I reviewed data and other information for linuron, a substituted urea, non-restricted use, herbicide, named by the Washington Toxics Coalition (WTC) and included in the court order for effects determinations and potential consultation with the National Marine Fisheries Service. Linuron is registered nationally for use on several crops and numerous noxious weeds. In Idaho, Oregon, and Washington it is used on carrots, asparagus, and registered for winter wheat. In California it is used on carrots, asparagus, celery, Rights of Way, and tomatoes, under Special Local Needs CA78016300 and CA79009600 (although the most recent CA report shows no such use).

The Environmental Fate and Effects Division (EFED) has completed an environmental risk assessment for a Reregistration Eligibility Decision (RED) issued May, 1995. The assessment concludes that endangered species levels of concern are exceeded for aquatic invertebrates exposed to runoff and drift from all sites. Endangered species levels of concern were exceeded for fish with asparagus, wheat, and Rights of Way use. We have adapted the more general findings of the EFED assessment to develop an analysis of the potential for effects on endangered and threatened Pacific salmon and steelhead Evolutionary Significant Units (ESUs) from current uses in California and the Pacific Northwest.

Based on the environmental risk assessment and additional considerations indicated in our analysis and other attached or referenced materials, we conclude that the use of linuron may affect, but is unlikely to adversely affect, 7 steelhead or salmon ESUs and will have no effect on 19 ESUs. Our determinations are based on the known or potential use of linuron on crops within habitats and migration corridors of each ESU, the acute risk of linuron to endangered fish, and the potential for indirect effects due to acute risks to their aquatic-invertebrate food supply.

attachments